

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A ~~network~~ processor, comprising:

an authentication buffer configured to store authentication data including ~~at least one of~~ ciphered-network-packet data subject to authentication, network packet data subject only to authentication, and network packet data subject to ciphering and authentication, wherein the authentication buffer includes a circular first-in-first-out (FIFO) arrangement; and

at least one authentication core coupled to the authentication buffer to authenticate the authentication data from the authentication buffer.

2. (Currently Amended) The ~~network~~ processor of Claim 1, wherein the circular FIFO arrangement includes a moveable start of data pointer and a moveable end of data pointer.

3. (Currently Amended) The ~~network~~ processor of Claim 1, wherein the network processor further includes at least one cipher core adapted to operate with a cipher algorithm and the at least one authentication core is adapted to operate with an authentication algorithm, and a size of the authentication buffer is selected in accordance with a data block size associated with the cipher algorithm and a data block size associated with the authentication algorithm.

4. (Currently Amended) The ~~network~~ processor of Claim 1, wherein the authentication core is adapted to authenticate the authentication data from the authentication buffer as blocks of authentication data.

5. (Original) A network, comprising:

a network processor having:

an authentication buffer to store authentication data including at least one of ciphered-network-packet data subject to authentication, network packet data subject only to authentication, and network packet data subject to ciphering and authentication, wherein the authentication buffer includes a circular first-in-first-out (FIFO) arrangement; and

at least one authentication core coupled to the authentication buffer to authenticate the authentication data from the authentication buffer.

6. (Currently Amended) The network of Claim 5, wherein the circular FIFO arrangement includes a moveable start of data pointer and a moveable end of data pointer.

7. (Original) The network of Claim 5, wherein the network processor further includes at least one cipher core adapted to operate with a cipher algorithm and the at least one authentication core is adapted to operate with an authentication algorithm, and a size of the authentication buffer is selected in accordance with a data block size associated with the cipher algorithm and a data block size associated with the authentication algorithm.

8. (Original) The network of Claim 5, wherein the authentication core is adapted to authenticate the authentication data from the authentication buffer as blocks of authentication data.

9. (Original) A method of authenticating network packet data, comprising:  
moving to an authentication buffer authentication data including at least one of ciphered-network-packet data subject to authentication, network packet data subject only to authentication, and network packet data subject to ciphering and authentication, wherein the authentication buffer includes a circular first-in-first-out (FIFO) arrangement; and

moving to an authentication core a block of data from the authentication buffer.

10. (Original) The method of Claim 9, wherein the moving to an authentication buffer authentication data comprises selecting the authentication buffer from among a plurality of authentication buffers.

11. (Original) The method of Claim 9, further including:

setting a start of data pointer and an end of data pointer to respective initial locations;

setting the end of data pointer in accordance with the moving the authentication data to the authentication buffer; and

setting the start of data pointer in accordance with the moving to the authentication core the block of data from the authentication buffer.

12. (Currently Amended) The method of Claim 9, wherein the ~~authentication buffer includes a~~ circular first-in-first-out (FIFO) arrangement includes a moveable start of data pointer and a moveable end of data pointer.

13. (Original) The method of Claim 9, further including:

providing a cipher core adapted to operate with a cipher algorithm;

providing the authentication core adapted to operate with an authentication algorithm, and

sizing the authentication buffer in accordance with a data block size associated with the cipher algorithm and a data block size associated with the authentication algorithm.

14. (Currently Amended) A computer ~~program~~ storage readable medium that stores instructions having computer-readable code thereon to authenticate network packet data, the instructions causing a machine to medium comprising:

~~instructions for moving~~ move to an authentication buffer authentication data including at least one of ciphered-network-packet data subject to authentication, network packet data subject only to authentication, and network packet data subject to ciphering and authentication, wherein the authentication buffer includes a circular first-in-first-out (FIFO) arrangement; and

~~instructions for moving~~ move to an authentication core a block of data from the authentication buffer.

15. (Currently Amended) The medium ~~method~~ of Claim 14, wherein the instructions causing a machine to move ~~for moving~~ to an authentication buffer authentication data comprises instructions causing a machine to select ~~for selecting~~ the authentication buffer from among a plurality of authentication buffers.

16. (Currently Amended) The medium method of Claim 14, further comprising instructions causing a machine to including:

~~instructions for setting~~ set a start of data pointer and an end of data pointer to respective initial locations;

~~instructions for setting~~ set the end of data pointer in accordance with the moving the authentication data to the authentication buffer; and

~~instructions for setting~~ set the start of data pointer in accordance with the instructions for moving to the authentication core the block of data from the authentication buffer.

Claim 17 (Cancelled)

18. (Currently Amended) The ~~computer program~~ medium of Claim 14, further comprising instructions causing a machine to including:

~~instructions for providing~~ provide a cipher core adapted to operate with a cipher algorithm;

~~instructions for providing~~ provide the authentication core adapted to operate with an authentication algorithm, and

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~~instructions for sizing~~ size the authentication buffer in accordance with a data  
block size associated with the cipher algorithm and a data block size associated with the  
authentication algorithm.